VECTREN – AB BROWN FACILITY

UPPER ASH POND DAM
LOWER ASH POND DRAM

DRAFT REPORT COMMENTS

EPA Comments

From: Killeen, Deborah A
Sent: Thursday, July 09, 2009 10:48 AM
To: Robert Bowers
Cc: Miller, Dennis A; Hoffman.Stephen@epamail.epa.gov
Subject: Comments on Draft Final Reports for Vectren - AB Brown impoundments

Good Morning Bob,

Below please find comments from the EPA on the draft final reports from the above site. I will be sending an e-mail today outlining the procedures to be used when incorporating these comments into the next version (i.e., required number of hard copies, required number & format of CDs, required footers to identify versions, etc.)

Comments on Lower Ash Pond Dam Report:

1) Check placement of Photo 3 on Figure 2; it seems too far west.
2) There are two Photo 10 markers on Figure 2; the furthest north marker should actually be Photo 11.
3) Appendix B: Photo 15 and 16 captions should indicate that the photos were taken facing west, not south. They should also mention that the emergency spillway outlet follows the left abutment of the lower dam around to the lower embankment area (or some such wording).

Comments on Upper Ash Pond Dam Report:

1) Photo 11 is not on Figure 2.
2) There are two Photo 7s on Figure 2; the location of Photo 8 in the Lower Dam Report should match the location of Photo 12 in the Upper Dam Report because they are the same photos.
3) Page 6, last paragraph, second sentence: change for clarification to read "The Three I Engineering, Inc. drawings..."

Comment for both the Upper and Lower Reports:

1) Sections 2.3 of both reports conclude that "only a minor amount of storm runoff enters this impoundment". The same reasons are given for this conclusion: either the upper/lower dam location and vegetation of the dam is shouldering the runoff burden. Please clarify as this seems to imply that more run-off is going to either one or the other but both receive only "minor runoff".

If there are any questions, please do not hesitate to call me.

Deb

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Global EPA Comments

From: Hoffman.Stephen@epamail.epa.gov [mailto:Hoffman.Stephen@epamail.epa.gov]
Sent: Thursday, July 23, 2009 11:09 AM
To: Miller, Dennis A; Killeen, Deborah A
Cc: Ur.Nancy@epamail.epa.gov; Kane.Gloria@epamail.epa.gov; Zownir.Andy@epamail.epa.gov
Subject: TDF 5

The TVA failure mode analysis report for the Kingston embankment failure was made public several weeks ago. One of the key findings was that the unit may have failed because the embankment was built upon coal ash slimes. I am directing LM to contact all of its subs and have them reassess each of the draft reports it has already completed and have them answer the following questions for each facility and unit studied:

* Concerning the embankment foundation, was the embankment construction built over wet ash, slag, or other unsuitable materials? If there is no information just note that.

* Did the dam assessor meet with, or have documentation from, the design Engineer-of-Record concerning the foundation preparation?

* From the site visit or from photographic documentation, was there evidence of prior releases, failures, or patchwork on the dikes?

Stephen Hoffman
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U.S. Environmental Protection Agency
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State Comments

None

Vectren Comments

Following:Page

VECTREN

Vectren Corporation
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August 10, 2009
Submitted via e-mail

Mr. Stephen Hoffman
Office of Resource Conservation and Recovery (5304P)
US Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

RE: Dam Assessment drafts prepared by O'Brien and Gere

Dear Mr. Hoffman:

SIGECO (dba Vectren) would like to thank you for the opportunity to review the draft reports for the Dam Site Assessments for our A. B. Brown Generating Station prepared by O'Brien and Gere. We feel it is in the best interest of both the company and EPA to insure that all public information is as accurate as possible. SIGECO understands that our input is limited solely to factual corrections and clarifications. We further understand that items listed in section 6 are recommendations and not requirements for the facility. We would like to note, however, that implementation or design of many of the recommendations has already begun or are scheduled for the next practical implementation date.

Overall we feel the Assessments for both dams were fair and accurate. We will strive to make improvements to the lower dam that will increase our rating to satisfactory. Areas of the assessments that we feel need clarification or correction are as follows:

- Lower Dam – Section 3.2.1, and Section 5 (final bullet): Explanation for use of SEDCAD4 for which the O'Brien and Gere assessment questions the validity of the model. ATC Associates states the following:

  The design, construction, and/or modification of dam structures in the state of Indiana is under the jurisdiction of the Indiana Department of Natural Resources Division of Water (IDNR-DOW). For the design and permit of the Vectren Ash Pond Upper Dam and hydrologic/hydraulic modeling of the Upper and Lower Dam systems, ATC met with and gained IDNR-DOW approval of the design parameters and methodology to be used including the use of the SEDCAD4 design model.

  The design model, SEDCAD4, developed by the University of Kentucky and Civil Software Design, was used to model the hydrologic/hydraulic properties of the Upper and Lower Dams of the Vectren AB Brown Ash Pond. SEDCAD4 utilizes Soil Conservation Service (SCS) TR-55 modeling techniques to assist in the design and evaluation of stormwater, erosion, and sediment control features. Hydrographs are developed for a

design storm on a subwatershed basis with the input of drainage area, time of concentration and SCS curve number, and input along with stage/discharge information to model and design storm water impoundments.

- Lower Dam – Section 3.2.1: ATC Associates offers the following correction to the final sentence which we feel is inaccurate.

  The ATC report titled "Construction in a Floodway Permit Application-Proposed Modifications to the Existing Ash Pond; SIGECO A.B. Brown Generating Station; West Franklin, Indiana; dated June 11, 2002 contains the hydrologic/hydraulic design information and SEDCAD4 Model results in Appendix B. The information shows that the watershed was divided into two (2) areas, the Upper Dam area which is approximately 163.4 acres and the Lower Dam area encompassing about 105 acres. Review of the data indicates that the runoff from the total contributing drainage area of 268.4 acres from **both** the Upper and Lower areas was included when modeling the hydrologic/hydraulic capability of the Lower Dam. The combination of the small watershed area and available storage capacity of the Upper and Lower Impoundment areas results in the peak outflow of 56.5 cfs and peak stage of 446.76 ft MSL in the Lower Impoundment when the 50% PMP 6 Hour storm depth of 14.2 inches is routed through the Upper and Lower Impoundment system.

Thank-you again for the opportunity to review the reports prior to issuing the final assessments. We request that we are notified when the final reports are issued. Please contact me at 812-491-4666 or lmessinger@vectren.com if you have any further questions.

Sincerely,

Lisa C. Messinger

Lisa C. Messinger, CHMM
Sr. Environmental Scientist

Cc: R. Simon, plant copy
D. Bryenton
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